**PROBLEM**

Aging demographics has contributed to a widespread shortage of perioperative nurses. While some Registered Nurses (RNs) are delaying retirement due to the deep impact of the 2008 economic recession, that will soon change. Mass perioperative nurse retirements are predicted in the next five years, which would cause the current shortage to escalate. This will leave a serious loss of perioperative nursing knowledge and experience critical to safe patient care and optimal outcomes.

Nursing students have minimal exposure to perioperative content and to clinical rotations in operative settings as part of traditional baccalaureate education. This means novice nurses are often unfamiliar with perioperative nursing as a realistic employment option after graduation. In addition, many nurse leaders are reluctant to hire new graduates into the perioperative arena due to their minimal exposure to the setting and limited theoretical knowledge of the specialty area.

**BACKGROUND**

**Aging perioperative nursing workforce**

As far back as 2000, Buerhaus and associates reported the Operating Room (OR) had the most diploma-prepared nurses and these nurses represented the most senior cohort of RNs. They also noted the perioperative setting had the second lowest percentage of RNs under age 40. According to the 2014 Association of periOperative Registered Nurses (AORN) Salary Survey (n=3,437), approximately 13% of respondents were at least 60 years of age; 38% were in their 50s; 27% in their 40s with only 23% under 40 years old. Sherman found that 64% of perioperative nurses she surveyed plan to be retired by 2022.

**Formal Education**

In 2013, Sherman and colleagues reported 56% of OR nurse leaders said they were currently experiencing recruitment challenges and 68% expected recruitment challenges in the next five years. Reasons cited were nurses’ lack of exposure to the OR during academic preparation, no perioperative nursing content in baccalaureate and other degree programs, a need for residency programs after graduation, and a lack of organizational commitment (time and money) to train inexperienced staff.

The lack of perioperative content in nursing curricula is a long-standing problem, and has been recognized as a barrier for perioperative nurse succession since the early 1970s. In 1973, the AORN House of Delegates passed a Position Statement for the “necessity for nursing student participation in operating room nursing,” p. 187. In 1980, AORN’s Project Alpha was first published and provided a set of guidelines to foster communication between perioperative nurses and academic leaders about integrating perioperative content into school of nursing curriculum. In 1981, the AORN House of
Delegates adopted Project Alpha to promote nursing students’ education in the perioperative setting. Project Alpha initiatives involving hospital and academic partnerships to promote perioperative nursing included: (a) developing electives that were offered in baccalaureate programs, (b) offering a post-graduate course in perioperative nursing to RNs, and (c) offering a perioperative nursing internship.

In 2004, leaders from the National League for Nursing (NLN) and AORN came together in a Think Tank to address perioperative nursing succession. Members concluded essential nursing knowledge and skills could be obtained through learning experiences in perioperative care. Think Tank members recommended incorporating OR theoretical content and perioperative clinicals as alternatives to traditional medical/surgical experiences, rather than adding more content.

More recent seminal works have called for a radical transformation in nursing education, including learning in action by integrating classroom and clinical learning. The Institute of Medicine called for a smoother transition to practice for new nurses with an emphasis on residencies, and noted the importance of interprofessional education to best prepare nurses to function in multidisciplinary teams providing patient-centered care. The American Association of Colleges of Nursing (AACN) recognizes interprofessional education as an essential component of baccalaureate nursing education.

Cost of Turnover
The AORN Recruitment Center experienced a 15% increase in perioperative nursing job postings for the period 1/1/2015 to 6/30/2015 as compared to the same period in 2014 (personal communication, Susan Becia, August 18, 2015), clearly supporting the need for perioperative registered nurses. Open positions correlate with the time and cost associated with nursing turnover.

Nursing orientation costs in any setting are reported to be as high as $65,000 to $75,000 per nurse in some parts of the county. These costs are even higher in the OR, where orientation time can extend from 6 to 12 months to allow for adequate experiential and theoretical learning on the part of the novice nurse. Surgical services and interventional care typically accounts for up to 60% of a health care facility’s revenue. Nurse turnover and associated orientation costs can significantly affect the profit margin.

Clearly, perioperative nurses are aging. It has been 34 years since Project Alpha was adopted and 11 years post-Think Tank, yet the same problems remain. Perioperative content is not integrated in undergraduate curricula, perioperative settings are not being used as a reasonable alternatives for clinical learning, and perioperative residencies are not widespread. Costs associated with orienting new nurses to the perioperative specialty as a result of impending mass retirements could cripple an institution’s bottom line and have deleterious, widespread effects on perioperative patient safety.

SOLUTION
Considering the current and increasing shortage of perioperative nurses, the wealth of experience that will be lost when large numbers of perioperative nurses retire in the next five to seven years, and the profound impact this could have on safe perioperative care, the time is now to adopt a comprehensive and strategic succession plan to address the problem. We are recommending a threefold approach to solving the problem:

Integrating OR Content into Baccalaureate Education
AORN’s vision is to “be the indispensable resource for evidence-based practice and education that establishes the standards of excellence in the delivery of perioperative nursing care.” AORN advocates for learning activities in the perioperative setting to be included in all undergraduate professional nursing curricula. The perioperative setting is a prime area to apply the nursing process. Integrating the Fundamentals of Perioperative Practice into existing curricula can comprehensively contribute to desired end-of-program outcomes.
The perioperative setting is an area with a tremendous emphasis on patient safety. There are countless opportunities to explore human factors and concepts related to health and disease. The course also provides a well-defined foundation of perioperative nursing concepts and gives students basic information about asepsis and teamwork that can be translated into a myriad of clinical experiences.\(^{18}\)

Since there is a fee associated with using the Fundamentals of Perioperative Practice course, we advocate for funding opportunities including: (a) allowing academic leaders to apply for AORN Foundation Scholarships to cover the per student cost at their institutions, and (b) having AORN leaders seek external funding to support using the Fundamentals of Perioperative Practice course in academic settings at a nominal cost. The current fee is not affordable and cannot reasonably be passed onto the student.

We also advocate for AORN leaders to seek funding from sources like the Robert Wood Johnson Foundation to support surgical technicians returning to school to become registered nurses in return for a commitment to work in the perioperative setting. Surgical technicians are an untapped resource to reduce the perioperative nursing shortage. Innovative arrangements could be made with academic partners for the surgical technicians to complete perioperative nursing clinical rotations as part of their baccalaureate education.

**Using Perioperative Sites for Clinical Learning**

Perioperative areas are severely underutilized as clinical sites, often used for observation-only experiences. The 1:8 faculty-to-student clinical ratio is prohibitive in the OR. Now is the time for academic and perioperative clinical partners to transform nursing education and develop more precepted, intern, or extern experiences for students, using innovative teaching and learning strategies to meet clinical objectives. Students can be offered precepted perioperative experiences as an alternative to medical/surgical “ward” rotations.\(^{19}\) In the perioperative setting, students can participate in interprofessional learning to a much greater degree in teams with surgeons, anesthesia providers, and other professionals providing operative patient-centered care. Using the Fundamentals of Perioperative Practice course would assure students came to clinical prepared with the theoretical knowledge necessary as a foundation for safe practice. Exposing students to perioperative theoretical and clinical learning while in school could translate into orientation cost-savings if these students go on to practice in the operative setting.

**Perioperative Nurse Residencies**

Offering residencies to new graduates and using the Periop 101: A Core Curriculum\(^ \text{TM}\) course ensures evidence-based teaching and learning practices are employed. New nurse success in residency programs has been well documented.\(^{20-51}\) Opening perioperative areas for nurse residencies would meet the IOM13 recommendations for smoother transition to practice, ease nurses into the OR specialty, and potentially increase retention of new nurses. Perioperative practice nicely affords itself to interprofessional, patient-centered care.

**SUMMARY**

With projected retirements of a large percentage of the perioperative nursing workforce in the next five to seven years, immediate attention to succession planning is critical. Operative settings must be staffed with academically and experientially qualified nurses who can provide high quality, safe care to ensure optimal patient outcomes. Integrating perioperative content in the nursing curricula, and using perioperative sites for clinical learning and residency sites after graduation, could create a greater interest in the perioperative specialty. These strategies could avert a national crisis due to a shortage of perioperative registered nurses, which could have catastrophic effects on aggregate surgical outcomes. It is time to stop 35 years of talking about a plan and begin implementing concrete strategies to avert a perioperative nursing crisis.
REFERENCES


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